

Comments Received from Mr. David Husain following the Final TMDL Public Meeting held on February 10, 2003

Quail Run TMDL Comments 3/4/03

Submitted by:
David Husain
166 Pheasant Rd.
McGaheysville, VA 22840
540-289-7197

On page 3 of the draft 'Benthic TMDL for Quail Run, Rockingham County, Virginia' in the second paragraph of Section 1.7 Reasonable Assurance of Implementation, it is stated

"It is recommended that a forested riparian canopy be reestablished in the disturbed riparian zone downstream of the STP to increase shading during the late spring to fall period and avert nutrient related periphyton growth problems. The Massanutten development is currently investigating costs associated with reestablishing the riparian canopy and is expected to enter into an agreement with VADEQ to partially restore the riparian canopy downstream of the STP."

I applaud and agree with this effort and strongly urge that an agreement be fostered to the point of implementation (i.e. reestablishment of downstream riparian canopy). However, this effort should go further by mandating that the Massanutten Public Service Corporation completely restore the mature riparian canopy (~ 3 to 4 acres) that was directly adjacent to and up gradient of Quail run. This tract of mature riparian canopy, also adjacent to the new STP, was completely felled just prior to beginning construction of the new STP. I am confident that restoration of this mature riparian canopy could go far in attaining and maintaining water quality standards well into the future.

This point is further substantiated on page 52 of the draft 'Benthic TMDL for Quail Run, Rockingham County, Virginia' in the second paragraph of Section 5.6 TMDL Implementation Process where the above quote is again used. Therefore, I believe it is further evident that partial restoration of the downstream riparian canopy be accomplished and more importantly that the recently cleared mature riparian canopy be added to the TMDL implementation process.

At the public meeting on 2/10/03, I requested a copy of the 1989 Water Quality Law for Quail Run but to date have not been able to arrange for receipt of a copy. Therefore, I am not necessarily able to comment on the findings of this document as specifically as I would like. So, in general, I would like to know how this law is being complied with relative to the MPSC STP permit and how the findings are being incorporated into the Quail Run TMDL? And, more specifically, I am led to believe this Water Quality Law limits the BOD₅ to a level which can't be met by complying with the present permit. Additionally, how can the TMDL be set without regard to this earlier, more indicative analysis of natural stream conditions?

DEQ Response to comments received from Mr. David Husain following the Final TMDL public meeting held on February 10, 2003

Mr. David Husain
166 Pheasant Road
McGaheysville, VA 22840

Dear Mr. Husain:

Thank you for reviewing the Quail Run TMDL draft report and submitting your comments. The Department of Environmental Quality (DEQ) appreciates your responses to the content of the TMDL study. You have raised a number of good points, including the fact that the restoration of the riparian canopy could aid in attaining and maintaining water quality standards. The TMDL study, as you indicated, includes a similar conclusion.

In an effort to assist Massanutten Public Service Corporation (PSC) with potential riparian restoration, DEQ staff provided Massanutten PSC with contacts and references for riparian restoration. While it is our hope that the riparian canopy is restored as part of the TMDL Implementation, this non-point source restoration activity is currently not required under state or federal law.

In your letter, you also referenced a 1989 Water Quality Law for Quail Run and "how this law was being complied with relative to the MPSC STP permit and how the findings are being incorporated into the TMDL". I believe you are referring to the Potomac-Shenandoah Water Quality Management Plan (WQMP) that was amended in 1989 for the Massanutten discharge with respect to BOD5 loading. Regarding your concern about the Massanutten PSC permit and compliance with the 1989 WQMP amendment, the current permit is consistent with the BOD5 loading included in the 1989 update to the WQMP. The TMDL study also considered the BOD5 loadings and permitted loads when assessing the probable stressors to the benthic community. Based on the data available, the BOD5 loadings were not considered to be a probable stressor to the benthic community and the TMDL was, therefore, not completed for BOD5.

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Your letter has been reviewed by DEQ TMDL staff and will be submitted to EPA as part of the public comment record. We greatly value your input and appreciate your comments on the Quail Run TMDL.

Sincerely,

Sandra T. Mueller
Watershed Programs

Comments Received from Mr. Richard H. Sedgley following the Final TMDL Public Meeting held on February 10, 2003

March 12, 2003

By Email and Hand Delivery

Ms. Sandra T. Mueller
Department of Environmental Quality
Commonwealth of Virginia
629 East Main Street
Richmond, Virginia 23219

Re: Quail Run TMDL
Massanutten Public Service Corp.

Dear Ms. Mueller:

I am writing on behalf of Massanutten Public Service Corp. and its parent Utilities, Inc. to comment on the draft TMDL for Quail Run in Rockingham County. The draft TMDL primarily addresses DEQ-identified benthic impairment below the Massanutten wastewater facility. Consistent with our meeting at your offices on October 10, 2002, the draft TMDL document also discusses dissolved oxygen issues and BOD discharge. The TMDL should include a wasteload allocation ("WLA") for BOD.

The draft TMDL addresses ammonia and total residual chlorine ("TRC"). The TMDL is consistent with the current Massanutten VPDES permit and the ammonia and TRC WLAs should be adopted as proposed. However, in the Quail Run TMDL development process, DEQ addressed dissolved oxygen concerns in Quail Run, and addressed the impact of BOD₅ (five-day Biochemical Oxygen Demand) and phosphorus on dissolved oxygen levels downstream of the permitted discharge point. From the TMDL document, it is apparent that DEQ has concluded that the existing permit BOD limits (10 mg/l monthly average and 15 mg/l weekly average) combined with the other Massanutten wastewater treatment facility improvements effectively address dissolved oxygen issues and will maintain the water quality standard in Quail Run.¹ Because Quail Run dissolved oxygen issues were part of the TMDL development process and the Department reached conclusions on those issues, the final TMDL should also address BOD.

A secondary reason for including the BOD issue in the TMDL is the distinction between the current Massanutten permit and the BOD WLA included in the current Water Quality Management Planning Regulation. The Regulation limits BOD₅ to an 84 pounds per day WLA in Quail Run.² Although it incorporates the BOD mass limits from the earlier Potomac-

¹ This is consistent with the Massanutten VPDES permit modification finalized by the Department last year. In that process the Department concluded that the permit concentration-based BOD limits will maintain water quality standards. Attachment 1 (Fact Sheet, VPDES Permit No. VA0024732, excerpts).

² On January 6, 2003, the State Water Control Board gave final approval to the Planning Regulation and the repeal of the prior Water Quality Management Plans. Although we are not aware that the new regulation and the repeal of the Potomac-Shenandoah and other Water Quality Management Plans have

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Shenandoah Plan, the Massanutten permit also provides that BOD mass limits based on the full WLA (at 10 mg/l monthly and 15 mg/l weekly) will take effect on the "repeal, amendment or modification of the conflicting Quail Run BOD₅ limitation contained in the Potomac-Shenandoah River Basin Water Quality Management Plan"³

For these reasons, we request that the Department add a BOD wasteload allocation to the Quail Run TMDL. The BOD WLA should provide that the TMDL and WLA for BOD₅ is the 10 mg/l monthly average and 15 mg/l weekly average BOD₅ limitation included in the Massanutten permit. For clarification, the TMDL and WLA or a footnote should state that BOD₅ mass is not limited. Alternately, to be consistent with the manner in which the ammonia and TRC TMDL and WLA are stated, the Department could state the BOD₅ TMDL and WLA as 20,708 kg/yr and 27,611 kg/yr for the 1.5 mgd and 2.0 mgd permitted Massanutten STP discharges, respectively.

As we noted before, the Department's Quail Run TMDL document addresses BOD and properly concludes that the existing Massanutten concentration-based permit limits are adequate to maintain water quality standards. The Department's conclusions concerning BOD and dissolved oxygen are inconsistent with the mass limitation included in the new Water Quality Management Planning Regulation. Therefore, it would be incorrect for the Department to not address the BOD issues in its finalization of the Quail Run TMDL. Also, you may be aware that on August 8, 2002, we submitted to the Department on behalf of Massanutten Public Service Corp. and Utilities, Inc. a Petition for Rulemaking to make the appropriate change to the Potomac-Shenandoah Water Quality Management Plan Regulation to remove the 84 pounds per day mass BOD₅ limit or to otherwise make it clear that BOD mass need not be restricted beyond the restriction inherent in the BOD concentration limits in the Massanutten VPDES permit. Finalization of the Quail Run TMDL in a manner that also addresses the dissolved oxygen and BOD issue will conserve the Department's resources by avoiding the necessity for the rulemaking procedure.

For these reasons, we request that the Department include the requested BOD provision in the final Quail Run TMDL. We will be happy to provide any additional information that may be helpful.

Sincerely,

Richard H. Sedgley

Copies:

Charles H. Martin
Tony Sharpe, Utilities, Inc.
Robert Burgin, Jr., P.E.

been public-noticed with an effective date yet, the document presented to the Board as the final Planning Regulation appears to incorporate the 84 pounds per day BOD limitation from the earlier Potomac-Shenandoah Water Quality Management Plan. Attachment 2 (excerpts from 9 VAC 25-720 Water Quality Management Planning Regulation as presented to the Board).

³ Attachment 3 (VPDES Permit No. VA0024732, excerpts).

DEQ Response to comments received from Mr. Richard H. Sedgley following the Final TMDL public meeting held on February 10, 2003

Mr. Richard H. Sedgley
McGuire Woods
One James Center
901 East Cary Street
Richmond, VA 23219

Dear Mr. Sedgley:

I have received your letter containing the comments on the draft Total Maximum Daily Load (TMDL) for the benthic impairment in Quail Run that was submitted on behalf of Massanutten Public Service Corp. and its parent Utilities, Inc. Your letter requests that a wasteload allocation (WLA) for Biochemical Oxygen Demand (BOD) be included in the TMDL a) because dissolved oxygen was part of the TMDL development, and b) due to issues with the current Massanutten Permit (VPDES Permit No. VA0024732) and the BOD WLA included in the Water Quality Plan Regulation.

Regarding your first concern, TMDLs completed for benthic impairments include a stressor analysis to identify the causes of the benthic impairment. The TMDL is then developed to address the identified stressors or pollutants. The stressor analysis contains an investigation of available chemical and physical monitoring data to support or eliminate the potential candidate causes. While dissolved oxygen was considered as a possible stressor, based on the available monitoring data, it did not appear to be a stressor. According the draft Quail Run TMDL report, Ammonia and Chlorine were considered the stressors of the benthic community, and the TMDL was developed for these pollutants. Therefore, the TMDL will be submitted to EPA as it has currently been developed for ammonia and chlorine.

In order to address your second concern, DEQ must amend the Potomac-Shenandoah River Basin Water Quality Management Plan (WQMP), VAC 25-560-10, to include the new effluent limitations and design flows for the treatment facility. In order to change the WQMP regulation, DEQ

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must go through the Administrative Process Act (APA). Once initiated, this process typically takes 18 months to complete. We plan to begin the Potomac Shenandoah amendment process in August 2003.

We look forward to working with you and the Massanutten Public Service Corporation in the upcoming months. Please feel free to contact me at (804) 698-4462 with any questions.

Sincerely,

Charles Martin
Environmental Engineering Consultant

Cc: Rod Bodkin